

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Valero Energy Partners LP

AUTHORIZING THE OPERATION OF
Valero Partners McKee
Petroleum Refineries

LOCATED AT
Moore County, Texas
Latitude 35° 57' 6" Longitude 101° 52' 24"
Regulated Entity Number: RN109518639

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O3912 Issuance Date: _____

For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
 - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
 - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
 - E. Emission units subject to 40 CFR Part 63, Subparts CC and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113,

Subchapter C, §§ 113.340 and 113.1130 respectively, which incorporate the 40 CFR Part 63 Subparts by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
 - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)
 - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
 - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
 - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(1)(E)
 - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
 - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable

Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

- (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
- (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer’s eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the

source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- C. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- D. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)
 - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)
 - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
6. For sources subject to emission standards in 40 CFR Part 63, Subpart CC, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.340 incorporated by reference):
 - A. Title 40 CFR § 63.640(l)(3) - (4) (relating to Applicability and Designation of Affected Source), for units and equipment added to an existing source
 - B. Title 40 CFR § 63.640(m)(1) - (2) (relating to Applicability and Designation of Affected Source), for units and emission points changing from Group 2 to Group 1 status
 - C. Title 40 CFR § 63.642(c) (relating to General Standards), for applicability of the General Provisions of Subpart A
 - D. Title 40 CFR § 63.642(e) (relating to General Standards), for recordkeeping
 - E. Title 40 CFR § 63.642(f) (relating to General Standards), for reporting
7. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

Additional Monitoring Requirements

8. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

9. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

- A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield
10. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
11. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, or performance tests. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

12. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
13. Use of Discrete Emission Credits to comply with the applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

- (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
- (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
- (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

- 14. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Permit Location

- 15. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

- 16. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary 10

Applicable Requirements Summary 14

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
FUG-CC-VV	FUGITIVE EMISSION UNITS	N/A	63CCVV-1	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-HTRNGL	PROCESS HEATERS/ FURNACES	H-33, H-35, H-51	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-HTRNGS	PROCESS HEATERS/ FURNACES	H-30, H-32	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRPTCC1KBE	STORAGE TANKS/ VESSELS	S-006, S-183, S-186, S-187, S-200, S-202, S-218, S-232, S-235, S-236, S-237	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
GRPTCC1KBE	STORAGE TANKS/ VESSELS	S-006, S-183, S-186, S-187, S-200, S-202, S-218, S-232, S-235, S-236, S-237	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTCC2AO	STORAGE TANKS/ VESSELS	S-060, S-065, S-066, S-067, S-068, S-069, S-070, S-072, S-074, S-075, S-076	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTCC2NKB	STORAGE TANKS/ VESSELS	S-031, S-203	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTCC2O	STORAGE TANKS/ VESSELS	S-007, S-010, S-020, S-024, S-027, S-028, S-037, S-038, S-039, S-040, S-043, S-045, S-046, S-052, S-055, S-095, S-139	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTNCRUD	STORAGE TANKS/ VESSELS	S-230, S-231	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
GRPTNCRUD	STORAGE TANKS/ VESSELS	S-230, S-231	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTNOHON	STORAGE TANKS/ VESSELS	S-001, S-009, S-021	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRPTOCC1E	STORAGE TANKS/ VESSELS	S-002, S-003, S-004, S-005, S-008, S-011, S-012, S-013, S-014, S-015, S-016, S-022, S-023	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTOCC1I	STORAGE TANKS/ VESSELS	S-032	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTUUKB	STORAGE TANKS/VESSELS	S-137, S-138	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
GRPTUUKB	ASPHALT OPERATIONS	S-137, S-138	60UU-01	40 CFR Part 60, Subpart UU	No changing attributes.
GRPTUUKB	STORAGE TANKS/ VESSELS	S-137, S-138	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRPTUUNKB	ASPHALT OPERATIONS	S-177, S-192, S-194	60UU-01	40 CFR Part 60, Subpart UU	No changing attributes.
GRPTUUNKB	STORAGE TANKS/ VESSELS	S-177, S-192, S-194	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-VT-20	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	H-32, H-32C, H-33, H-35, H- 51	R1111-02	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-VT-30	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	H-30	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
H-32C	PROCESS HEATERS/ FURNACES	N/A	63DDDDDD-01	40 CFR Part 63, Subpart DDDDDD	No changing attributes.
S-017	STORAGE TANKS/ VESSELS	N/A	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
S-017	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
S-018	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	Group 1 Storage Vessel = The storage vessel is a Group 2 vessel., Applicability = The storage vessel is required to comply with 40 CFR Part 63, Subpart CC and is part of a process unit.
S-018	STORAGE TANKS/ VESSELS	N/A	63CC-02	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = External floating roof, Seal Type = Two seals, one above the other, the primary seal being a metallic shoe seal, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
S-019	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	Group 1 Storage Vessel = The storage vessel is a Group 2 vessel., Applicability = The storage vessel is required to comply with 40 CFR Part 63, Subpart CC and is part of a process unit.
S-019	STORAGE TANKS/ VESSELS	N/A	63CC-02	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = External floating roof, Seal Type = Two seals, one above the other, the primary seal being a metallic shoe seal, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
S-033	STORAGE TANKS/ VESSELS	N/A	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
S-033	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-035A	STORAGE TANKS/ VESSELS	N/A	63CC	40 CFR Part 63, Subpart CC	No changing attributes.
S-090	STORAGE TANKS/ VESSELS	N/A	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
S-090	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-143	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-144	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-150	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-176	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-204	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-229	STORAGE TANKS/ VESSELS	N/A	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
S-229	STORAGE TANKS/ VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(d)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for equipment in vacuum service.	None	§ 60.486(e) § 60.486(e)(1) § 60.486(e)(5)	None
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 63.648(a)(2) § 63.648(f) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pumps complying with §60.482-2.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(d)(6) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-9 § 63.648(a)(2) § 63.648(j) § 63.648(j)(1) § 63.648(j)(2)(ii) § 63.648(j)(2)(iii) § 63.648(j)(3) § 63.648(j)(3)(iii) § 63.648(j)(3)(iv) § 63.648(j)(4) [G]§ 63.648(j)(6) § 63.648(j)(7) § 63.648(j)(7)(ii) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pressure relief devices in gas/vapor service.	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 63.648(j)(2)(i) § 63.648(j)(2)(ii) § 63.648(j)(2)(iii) § 63.648(j)(3)(i) § 63.648(j)(3)(ii) § 63.648(j)(3)(iii)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.648(j)(3)(ii) § 63.648(j)(7)(i) § 63.648(j)(7)(iii) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for sampling connection systems complying with §60.482-5.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for open-ended valves or lines complying with §60.482-6.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for valves in gas/vapor service or in light liquid service complying with §60.482-7.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for valves in heavy liquid service complying with §60.482-8.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pumps in heavy liquid service complying with §60.482-8.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for flanges or other connectors in heavy liquid service complying with §60.482-8.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 63.648(a)(3) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for flares complying with §60.482-10.	§ 60.485(a) § 60.485(f) [G]§ 60.485(g)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(5)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 63.655(f)(1)(i)(D)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) [G]§ 60.482-1(c) [G]§ 60.484 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for components complying with an equivalent emission limitation in §60.482-1.	[G]§ 60.482-1(c) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for closed vent (or vapor collection) systems complying with §60.482-10.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 63.655(f)(1)(i)(C) [G]§ 63.655(f)(1)(i)(D)
GRP-HTRNGL	EU	63DDDDD-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table3.3 § 63.7500(a)(1) § 63.7500(a)(1)-Table3.4§ 63.7500(a)(3) § 63.7500(f) § 63.7505(a) § 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(13)	A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater must conduct a tune-up of the boiler or process heater annually as specified in § 63.7540.	§ 63.7515(d) § 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(10) § 63.7540(a)(10)(i) § 63.7540(a)(10)(ii) § 63.7540(a)(10)(iii) § 63.7540(a)(10)(iv) § 63.7540(a)(10)(v)	[G]§ 63.7540(a)(10)(vi) [G]§ 63.7555(a) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7530(e) § 63.7540(b) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) [G]§ 63.7545(e)(8) § 63.7550(a) [G]§ 63.7550(b) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-HTRNGS	EU	63DDDDD-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table3.2 § 63.7500(a)(1) § 63.7500(a)(1)-Table3.4 § 63.7500(a)(3) § 63.7500(e) § 63.7500(f) § 63.7505(a) § 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(11) § 63.7540(a)(13)	A new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in a unit designed to burn gas 1 must conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.	§ 63.7515(d) § 63.7540(a) § 63.7540(a)(1)	§ 63.7555(a)(1) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7530(e) § 63.7540(b) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) [G]§ 63.7545(e)(8) [G]§ 63.7545(f) § 63.7550(a) [G]§ 63.7550(b) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
GRPTCC1KBE	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTCC1KBE	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) § 63.1063(d)(3)(iii) [G]§ 63.1063(e) § 63.640(n) § 63.640(n)(2) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)
GRPTCC2AO	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTCC2NKB	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)
GRPTCC2O	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTNCRUD	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)
GRPTNCRUD	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) § 63.1063(e) § 63.640(n) § 63.640(n)(2) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTNOHON	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) § 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)
GRPTOCC1E	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) [G]§ 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)
GRPTOCC1I	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(1) § 63.1063 § 63.1063(a)(1)(i)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(1) § 63.1063(d) [G]§ 63.1063(d)(1) § 63.1063(d)(2)	§ 63.1065 § 63.1065(a) [G]§ 63.1065(b)(1) § 63.642(e) § 63.655(i) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(2)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTUUKB	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	§ 60.110b(a)	Except for §60.110b(b), this subpart applies to vessels with a capacity greater than or equal to 75 cubic meters (19,800 gal) used to store VOLs for which construction/reconstruction/modification began after 7/23/84.	§ 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(d) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.116b(d)
GRPTUUKB	EU	60UU-01	PM (Opacity)	40 CFR Part 60, Subpart UU	§ 60.472(c)	Within 60 days of maximum production rate, but not later than 180 days after initial startup, asphalt storage tank exhaust gases shall not discharge opacity > 0%, except as specified.	§ 60.473(c) § 60.473(d) § 60.474(b) § 60.474(c)(5) ** See Periodic Monitoring Summary	§ 60.473(d)	§ 60.473(c) § 60.473(d)
GRPTUUKB	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 60.110b(a) [G]§ 63.640(m) § 63.640(n)(1) § 63.640(n)(8)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	§ 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(d) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.116b(d)
GRPTUUNKB	EU	60UU-01	PM (Opacity)	40 CFR Part 60, Subpart UU	§ 60.472(c)	Within 60 days of maximum production rate, but not later than 180 days after initial startup, asphalt storage tank exhaust gases shall not discharge opacity > 0%, except as specified.	§ 60.473(c) § 60.473(d) § 60.474(b) § 60.474(c)(5) ** See Periodic Monitoring Summary	§ 60.473(d)	§ 60.473(c) § 60.473(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTUUNKB	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)
GRP-VT-20	EP	R1111-02	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRP-VT-30	EP	R1111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(A) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 30% averaged over a six minute period.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
H-32C	EU	63DDDDD-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table3.1 § 63.7500(a)(1) § 63.7500(a)(1)-Table3.4 § 63.7500(a)(3) § 63.7500(e) § 63.7500(f) § 63.7505(a) § 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(12) § 63.7540(a)(13)	A new or existing boiler or process heater with a heat input capacity of less than or equal to 5 million Btu per hour in a unit designed to burn gas 1 must conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.	§ 63.7515(d) § 63.7540(a) § 63.7540(a)(1)	§ 63.7555(a)(1) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7530(e) § 63.7540(b) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) [G]§ 63.7545(e)(8) [G]§ 63.7545(f) § 63.7550(a) [G]§ 63.7550(b) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
S-017	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-017	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) [G]§ 60.112b(a)(2) [G]§ 63.640(m) § 63.640(n)(1) [G]§ 63.640(n)(8)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) § 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)
S-018	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-018	EU	63CC-02	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) [G]§ 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)
S-019	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-019	EU	63CC-02	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) [G]§ 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)
S-033	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-033	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii) [G]§ 63.640(m) § 63.640(n)(1) [G]§ 63.640(n)(8)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3)
S-035A	EU	63CC	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-090	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(B) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) [G]§ 60.113b(a)(3) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(4)
S-090	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(1) § 63.1063 § 63.1063(a)(1)(i)(C) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(e) § 63.640(n) § 63.640(n)(2) § 63.660 § 63.660(a) [G]§ 63.660(b)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(1) § 63.1063(d) [G]§ 63.1063(d)(1) § 63.1063(d)(2)	§ 63.1065 § 63.1065(a) [G]§ 63.1065(b)(1) § 63.642(e) § 63.655(i) § 63.655(i)(6)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(2)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-143	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) [G]§ 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)
S-144	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-150	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)
S-176	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) [G]§ 63.1063(e) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-204	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(1)(vi) § 63.655(i)(6)	[G]§ 63.640(k)(2) [G]§ 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)
S-229	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
S-229	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.1062(a)(2) § 63.1063 § 63.1063(a)(1)(ii)(B) [G]§ 63.1063(a)(2) [G]§ 63.1063(b) § 63.1063(d)(3)(ii) [G]§ 63.1063(e) § 63.640(n) § 63.640(n)(2) § 63.660 § 63.660(a) [G]§ 63.660(b) § 63.660(c)(1) § 63.660(c)(2)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.1063(c)(2) § 63.1063(d) [G]§ 63.1063(d)(1) [G]§ 63.1063(d)(3) § 63.660(a)(1)	§ 63.1063(e)(2) [G]§ 63.1065 § 63.642(e) § 63.655(i) [G]§ 63.655(i)(1) § 63.655(i)(6) § 63.660(a)(1)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(f)(6) § 63.655(g) [G]§ 63.655(g)(3)(ii) § 63.655(h) [G]§ 63.655(h)(2) § 63.655(h)(6) § 63.655(h)(6)(ii)

Additional Monitoring Requirements

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Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPTUUKB	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart UU	SOP Index No.: 60UU-01
Pollutant: PM (Opacity)	Main Standard: § 60.472(c)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: Once per month	
Averaging Period: Six-minutes	
Deviation Limit: Opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing	
Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the deviation limit shall be reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPTUUNKB	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart UU	SOP Index No.: 60UU-01
Pollutant: PM (Opacity)	Main Standard: § 60.472(c)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: Once per month	
Averaging Period: Six-minutes	
Deviation Limit: Opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing	
Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the deviation limit shall be reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VT-20	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-02
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: Opacity above 20%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VT-30	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-01
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: Opacity above 30%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

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The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
1150TKTXX4	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
1150TKTXX5	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
1150TKTXX6	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
1220TKTXX1	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
1220TKTXX2	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
1220TKTXX3	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
GRP-HTRNGL	H-33, H-35, H-51	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel
GRP-HTRNGL	H-33, H-35, H-51	40 CFR Part 60, Subpart J	Process heater combusts only commercially purchased natural gas and is therefore not a fuel gas combustion device subject to regulation under Subpart J.
GRP-HTRNGS	H-30, H-32	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRP-HTRNGS	H-30, H-32	40 CFR Part 60, Subpart J	Process heater combusts only commercially purchased natural gas and is therefore not a fuel gas combustion device subject to regulation under Subpart J.
GRPTCC1KBE	S-006, S-183, S-186, S-187, S-200, S-202, S-218, S-232, S-235, S-236, S-237	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)
GRPTCC2AO	S-060, S-065, S-066, S-067, S-068, S-069, S-070, S-072, S-074, S-075, S-076	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11/73
GRPTCC2AO	S-060, S-065, S-066, S-067, S-068, S-069, S-070, S-072, S-074, S-075, S-076	40 CFR Part 60, Subpart UU	Storage tank stores non-roofing asphalts only, and did not commence construction or modification after 5/26/81
GRPTCC2AO	S-060, S-065, S-066, S-067, S-068, S-069, S-070, S-072, S-074, S-075, S-076	40 CFR Part 63, Subpart EEEE	Asphalt is not included in the definition of organic liquid under MACT EEEE
GRPTCC2O	S-007, S-010, S-020, S-024, S-027, S-028, S-037, S-038, S-039, S-040, S-043, S-045, S-046, S-052, S-055, S-095, S-139	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11 /73
GRPTCC2O	S-007, S-010, S-020, S-024, S-027, S-028, S-037, S-038, S-039, S-040, S-043, S-045, S-046, S-052, S-055, S-095, S-139	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRPTNCRUD	S-230, S-231	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)
GRPTNOHON	S-001, S-009, S-021	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11/73
GRPTNOHON	S-001, S-009, S-021	40 CFR Part 61, Subpart Y	Vessel stores benzene that is not within the specific gravities defined in 40 CFR §61.270(a)
GRPTNOHON	S-001, S-009, S-021	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)
GRPTNOHON	S-001, S-009, S-021	40 CFR Part 63, Subpart G	Storage vessel is part of a petroleum refining process unit, which is not subject to the provisions of 40 CFR Part 60, Subparts F, G, and H
GRPTOCC1E	S-002, S-003, S-004, S-005, S-008, S-011, S-012, S-013, S-014, S-015, S-016, S-022, S-023	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11/73
GRPTOCC1E	S-002, S-003, S-004, S-005, S-008, S-011, S-012, S-013, S-014, S-015, S-016, S-022, S-023	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)
GRPTOCC1I	S-032	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11/73
GRPTOCC1I	S-032	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRPTUUKB	S-137, S-138	40 CFR Part 63, Subpart EEEE	Material stored contains less than 5 wt% HAP of the organic HAP listed in Table 1, which does not meet the definition of Organic liquid under MACT EEEE
GRPTUUNKB	S-177, S-192, S-194	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
GRPTUUNKB	S-177, S-192, S-194	40 CFR Part 63, Subpart EEEE	Material stored contains less than 5 wt% HAP of the organic HAP listed in Table 1, which does not meet the definition of Organic liquid under MACT EEEE
H-32C	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel
H-32C	N/A	40 CFR Part 60, Subpart J	Process heater combusts only commercially purchased natural gas and is therefore not a fuel gas combustion device subject to regulation under Subpart J.
S-017	N/A	40 CFR Part 63, Subpart EEEE	Tanks are an affected source under another 40 CFR 63 subpart (MACT CC)
S-018	N/A	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11/73
S-018	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-019	N/A	40 CFR Part 60, Subpart K	Storage tank did not commence construction or modification after 6/11/73

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
S-019	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-035A	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
S-090	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-143	N/A	40 CFR Part 60, Subpart Ka	MACT CC Group 1 tanks are not required to comply with NSPS K or Ka
S-143	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-144	N/A	40 CFR Part 60, Subpart Ka	Stores petroleum liquids with a RVP < 1.0 and TVP < 1.0
S-144	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-150	N/A	40 CFR Part 60, Subpart Ka	Stores petroleum liquids with a RVP < 1.0 and TVP < 1.0
S-150	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-176	N/A	40 CFR Part 60, Subpart Ka	MACT CC Group 1 tanks are not required to comply with NSPS K or Ka
S-176	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
S-204	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity > 39,900 gallons and stores a VOL with a maximum true vapor pressure < 0.5 psia
S-204	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-229	N/A	40 CFR Part 61, Subpart FF	Vessel does not manage, treat or store facility waste
S-229	N/A	40 CFR Part 61, Subpart Y	Vessel stores benzene that is not within the specific gravities defined in 40 CFR §61.270(a)
S-229	N/A	40 CFR Part 63, Subpart EEEE	Tank is an affected source under another 40 CFR 63 subpart (MACT CC)
S-229	N/A	40 CFR Part 63, Subpart G	Storage vessel is part of a petroleum refining process unit, which is not subject to the provisions of 40 CFR Part 60, Subparts F, G, and H

New Source Review Authorization References

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New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: GHGPSDTX20*	Issuance Date: 09/16/2013
PSD Permit No.: PSDTX1524**	Issuance Date: 03/31/2016
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 138707**	Issuance Date: 03/31/2016
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.472	Version No./Date: 09/04/2000

*For reference, EPA issued permit PSD-TX-861-GHG has been assigned TCEQ permit number GHGPSDTX20.

**Permits 138707 and PSDTX861M3 were issued to Diamond Shamrock Refining Company, L.P. on 03/31/2016. These permits have been transferred to Valero Energy Partners LP, and the PSD permit number has been administratively updated to PSDTX1524.

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
1150TKTXX4	TANK 2630	138707, 106.261/11/01/2003, 106.472/09/04/2000, PSDTX1524
1150TKTXX5	TANK 2601	138707, 106.261/11/01/2003, 106.472/09/04/2000, PSDTX1524
1150TKTXX6	TANK 2602	138707, 106.261/11/01/2003, 106.472/09/04/2000, PSDTX1524
1220TKTXX1	TANK 2606	138707, 106.261/11/01/2003, 106.472/09/04/2000, PSDTX1524
1220TKTXX2	TANK 2607	138707, 106.261/11/01/2003, 106.472/09/04/2000, PSDTX1524
1220TKTXX3	TANK 2608	138707, 106.261/11/01/2003, 106.472/09/04/2000, PSDTX1524
FUG-CC-VV	MACT CC FUGITIVES (EXISTING)	138707, 106.261/11/01/2003, 106.472/09/04/2000, GHGPSDTX20, PSDTX1524
H-30	ASPHALT TANK HEATERS 5501, 5502, 5503	138707, PSDTX1524
H-32	ASPHALT TANK HEATERS 20M5, 20M6	138707, PSDTX1524
H-32C	ASPHALT TANK HEATERS 20M7	138707, PSDTX1524
H-33	ASPHALT TANK HTRS. 34, 121, 141, 551, 552	138707, PSDTX1524
H-35	ASPHALT TANK HEATER 300M2	138707, PSDTX1524
H-51	ASPHALT TANK HEATER 300M3	138707, PSDTX1524
S-001	TANK 120M1	138707, PSDTX1524
S-002	TANK 133	138707, PSDTX1524
S-003	TANK 134	138707, PSDTX1524

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-004	TANK 139	138707, PSDTX1524
S-005	TANK 150M1	138707, PSDTX1524
S-006	TANK 157	138707, PSDTX1524
S-007	TANK 167	138707, PSDTX1524
S-008	TANK 1001	138707, PSDTX1524
S-009	TANK 1003	138707, PSDTX1524
S-010	TANK 1501	138707, PSDTX1524
S-011	TANK 1502	138707, PSDTX1524
S-012	TANK 3001	138707, PSDTX1524
S-013	TANK 3002	138707, PSDTX1524
S-014	TANK 6701	138707, PSDTX1524
S-015	TANK 6702	138707, PSDTX1524
S-016	TANK 31	138707, PSDTX1524
S-017	TANK 138	138707, PSDTX1524
S-018	TANK 161	138707, PSDTX1524
S-019	TANK 163	138707, PSDTX1524
S-020	TANK 168	138707, PSDTX1524
S-021	TANK 101	138707, PSDTX1524
S-022	TANK 120M2	138707, PSDTX1524
S-023	TANK 120M3	138707, PSDTX1524
S-024	TANK 126	138707, PSDTX1524

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-027	TANK 166	138707, PSDTX1524
S-028	TANK 2	138707, PSDTX1524
S-031	TANK 100M2	138707, PSDTX1524
S-032	TANK 140	138707, PSDTX1524
S-033	TANK 145	138707, PSDTX1524
S-035A	TANK 147	106.472/09/04/2000
S-037	TANK 21	138707, PSDTX1524
S-038	TANK 22	138707, PSDTX1524
S-039	TANK 130	138707, PSDTX1524
S-040	TANK 148	138707, PSDTX1524
S-043	TANK 164	138707, PSDTX1524
S-045	TANK 127	138707, PSDTX1524
S-046	TANK 142	138707, PSDTX1524
S-052	TANK 128	138707, PSDTX1524
S-055	TANK 1	138707, PSDTX1524
S-060	TANK 24	138707, PSDTX1524
S-065	TANK 29	138707, PSDTX1524
S-066	TANK 30	138707, PSDTX1524
S-067	TANK 32	138707, PSDTX1524
S-068	TANK 33	138707, PSDTX1524
S-069	TANK 34	138707, PSDTX1524

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-070	TANK 121	138707, PSDTX1524
S-072	TANK 551	138707, PSDTX1524
S-074	TANK 5501	138707, PSDTX1524
S-075	TANK 5502	138707, PSDTX1524
S-076	TANK 5503	138707, PSDTX1524
S-090	TANK 4	138707, PSDTX1524
S-095	TANK 100M1	138707, PSDTX1524
S-137	TANK 20M5	138707, PSDTX1524
S-138	TANK 20M6	138707, PSDTX1524
S-139	TANK 125	138707, PSDTX1524
S-143	TANK 5505	138707, PSDTX1524
S-144	TANK 5504	138707, PSDTX1524
S-150	TANK 300M1	138707, PSDTX1524
S-176	TANK 200M1	138707, PSDTX1524
S-177	TANK 300M2	138707, PSDTX1524
S-183	TANK 120M4	138707, PSDTX1524
S-186	TANK 80M1	138707, PSDTX1524
S-187	TANK 150M2	138707, PSDTX1524
S-192	TANK 20M7	138707, PSDTX1524
S-194	TANK 300M3	138707, PSDTX1524
S-200	TANK 5506	138707, PSDTX1524

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-202	TANK 100M3	138707, PSDTX1524
S-203	TANK 150M3	138707, PSDTX1524
S-204	TANK 150M4	138707, PSDTX1524
S-218	TANK 60M1	138707, PSDTX1524
S-229	TANK 60M2	138707, PSDTX1524
S-230	TANK 150M6	138707, PSDTX1524
S-231	TANK 150M7	138707, PSDTX1524
S-232	TANK 200M4	138707, PSDTX1524
S-235	TANK 200M6	138707, PSDTX1524
S-236	TANK 150M8	138707, PSDTX1524
S-237	TANK 150M9	138707, PSDTX1524

Appendix A

Acronym List 55

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
COMS	continuous opacity monitoring system
CVS	closed vent system
D/FW	Dallas/Fort Worth (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MACT	Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr	Million British thermal units per hour
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NESHAP	National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO _x	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PEMS	predictive emissions monitoring system
PM	particulate matter
ppmv	parts per million by volume
PRO	process unit
PSD	prevention of significant deterioration
psia	pounds per square inch absolute
SIP	state implementation plan
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table 57

Major NSR Summary Table

Permit Number: GHGPSDTX20					Issuance Date: 09/16/2013		
Emission Point No.	Source Name	Air Contaminant Name ⁽⁹⁾	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			TPY ⁽²⁾	TPY CO _{2e} ^{(1),(2),(3)}	Spec. Cond.	Spec. Cond.	Spec. Cond.
B-22	No. 22 Boiler	CO ₂	112,501.56	113,043	III.A.2, III.A.3, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.I	III.A.2, III.A.3, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	V.A.4, V.B, V.C, V.F, VI
		CH ₄	6.52				
		N ₂ O	1.30				
H-2	No. 1 Vacuum Heater	CO ₂	37,571.78	37,754	III.B.2, III.B.3, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.J	III.B.2, III.B.3, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
		CH ₄	2.18				
		N ₂ O	0.44				
H-64	No. 4 Hydrotreater Charge Heater	CO ₂	16,631.04	16,711	III.B.2, III.B.3, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.J	III.B.2, III.B.3, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
		CH ₄	0.96				
		N ₂ O	0.19				

Major NSR Summary Table

Permit Number: GHGPSDTX20					Issuance Date: 09/16/2013		
Emission Point No.	Source Name	Air Contaminant Name ⁽⁹⁾	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			TPY ⁽²⁾	TPY CO _{2e} ^{(1),(2),(3)}	Spec. Cond.	Spec. Cond.	Spec. Cond.
V-5	No. 1 SRU equipped with a Claus Burner and Tail Gas Incinerator ⁽⁶⁾	CO ₂	28,021.28	28,030	III.C, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.J	III.C, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
		CH ₄	0.12				
		N ₂ O	0.02				
FUGITIVES	Process Fugitives ⁽⁸⁾	CO ₂	No Numerical Limit Established ⁽⁴⁾	74.6	III.E, IV.A.1	III.E, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7	IV.A.4, VI
		CH ₄	3.55				
		N ₂ O	No Numerical Limit Established ⁽⁴⁾				

Major NSR Summary Table

Permit Number: GHGPSDTX20					Issuance Date: 09/16/2013		
Emission Point No.	Source Name	Air Contaminant Name ⁽⁹⁾	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			TPY ⁽²⁾	TPY CO _{2e} ^{(1),(2),(3)}	Spec. Cond.	Spec. Cond.	Spec. Cond.
MSS-CONTROL	Portable Combustion Control Device	CO ₂	11.00	12	III.D, IV.A.1	III.D, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7	IV.A.4, VI
		CH ₄	0.03				
		N ₂ O	No Numerical Limit Established ⁽⁴⁾				
MSSFUG	Process Fugitives MSS ⁽⁸⁾	CO ₂	No Numerical Limit Established ⁽⁴⁾	0.63	III.E, IV.A.1	III.E, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7	IV.A.4, VI
		CH ₄	0.03				
		N ₂ O	No Numerical Limit Established ⁽⁴⁾				
-	Total Emissions ^{(5),(7)}	CO ₂	194,736.66	195,625.2	N/A	N/A	N/A
		CH ₄	13.39				
		N ₂ O	1.95				

Footnotes:

- (1) Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average.
- (2) The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations including MSS activities.
- (3) Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
- (4) All values indicated as "No Numerical Limit Established" are less than 0.01 tpy with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
- (5) The total emissions for CH₄, N₂O, CO₂ and CO₂e do not include the PTE for process fugitive emissions only from increased fugitive components.
- (6) Emissions include greenhouse gas emissions from fuel gas and acid gas combustion in SRU Claus burners and the tail gas incinerator.
- (7) Totals represent the amount of new or modified emission unit greenhouse gas emissions.
- (8) Process fugitive emissions are estimated for additional fugitive components only to be added by this project.
- (9) CO₂ – carbon dioxide
CH₄ – methane
N₂O – nitrous oxide

Major NSR Summary Table

Permit Numbers: 138707 and PSDTX1524					Issuance Date: March 31, 2016		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
MAINTENANCE EMISSIONS CAPS:		VOC	1062.63	19.59	11, 13, 14, 16, 17	10, 11, 13, 14, 16, 17, 19, 23, 24	
		NO _x	1.85	0.13			
		CO	3.70	0.27			
F-85, F-ASPHALT, F-ETNKFRM, F-NTNKFRM,F-WTNKFRM	Sub cap for Fugitives (5)	VOC	12.24	52.36	3, 8, 12	3, 8, 12, 23, 24	3, 8
		H ₂ S	<0.01	<0.01			
		Benzene	0.05	0.23			
S-001, S-002, S-003, S-004, S-005, S-006, S-007, S-008, S-009, S-010, S-011, S-012, S-013, S-014, S-015, S-016, S-017, S-018, S-019, S-020, S-021, S-022, S-023, S-024, S-027, S-028, S-031, S-032, S-033, S-037, S-038, S-039, S-040, S-043, S-045, S-046, S-052, S-055, S-060, S-065, S-066, S-067, S-068, S-069, S-070, S-072, S-074, S-075, S-076, S-090, S-095, S-137, S-138, S-139, S-143, S-144, S-150, S-176, S-177, S-183, S-186, S-187, S-192, S-194, S-200, S-202, S-203, S-204, S-218, S-229	Sub cap for Storage Tanks	VOC	113.90	376.43	4, 13, 14	4, 13, 14, 23, 24	

Major NSR Summary Table

Permit Numbers: 138707 and PSDTX1524					Issuance Date: March 31, 2016		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
S-001, S-002, S-003, S-004, S-006, S-007, S-008, S-009, S-010, S-012, S-013, S-014, S-020, S-022, S-023, S-027, S-031, S-032, S-037, S-038, S-043, S-045, S-052, S-055, S-070, S-075, S-095, S-137, S-138, S-143, S-144, S-150, S-176, S-177, S-183, S-186, S-187, S-192, S-194, S-200, S-202, S-218, S-230, S-231, S-232, S-235, S-236, S-237	Subcap for Crude Expansion Tanks	VOC	82.35	208.81	4, 13, 14	4, 13, 14, 23, 24	
Tank Benzene Cap		Benzene	1.33	3.82	4, 13, 14,	4, 13, 14, 23, 24	
1220TKTXX1	Truck Rack B100 Blend Tank	VOC	4.99	0.74	4, 13, 14	4, 13, 14, 23, 24	
1220TKTXX2	Truck Rack B100 Certification Tank	VOC	4.99	1.46	4, 13, 14	4, 13, 14, 23, 24	
1220TKTXX3	Truck Rack B100 Certification Tank	VOC	4.99	0.74	4, 13, 14	4, 13, 14, 23, 24	

Major NSR Summary Table

Permit Numbers: 138707 and PSDTX1524					Issuance Date: March 31, 2016		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1220TKTXX4	Pipeline B100 Blend Tank	VOC	4.99	0.74	4, 13, 14	4, 13, 14, 23, 24	
1220TKTXX5	Pipeline B100 Blend Tank	VOC	4.99	0.74	4, 13, 14	4, 13, 14, 23, 24	
MSS_ABRBLS	Abrasive Blasting Operation	PM	0.54	0.18		10, 21, 23	
		PM ₁₀	0.07	0.02			
		PM _{2.5}	< 0.01	< 0.01			
H-30	Asphalt Tank Heaters 5501, 5502, and 5503	NO _x	2.54	11.12	6, 7	23, 24	
		CO	0.82	3.57			
		VOC	0.05	0.23			
		SO ₂	0.27	1.18			
		PM	0.07	0.31			
		PM ₁₀	0.07	0.31			
		PM _{2.5}	0.07	0.31			

Major NSR Summary Table

Permit Numbers: 138707 and PSDTX1524					Issuance Date: March 31, 2016		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
H-32	Tank Heaters 20M5 and 20M6	NO _x	0.80	3.50	6, 7	23, 24	
		CO	0.56	2.46			
		VOC	0.04	0.16			
		SO ₂	0.19	0.82			
		PM	0.05	0.22			
		PM ₁₀	0.05	0.22			
		PM _{2.5}	0.05	0.22			
H-32C	Asphalt Tank Heater 20M7	NO _x	0.33	1.43	6, 7	23, 24	
		CO	0.28	1.23			
		VOC	0.02	0.08			
		SO ₂	0.09	0.41			
		PM	0.02	0.11			
		PM ₁₀	0.02	0.11			
		PM _{2.5}	0.02	0.11			

Major NSR Summary Table

Permit Numbers: 138707 and PSDTX1524					Issuance Date: March 31, 2016		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
H-33	Tank Heaters 34 and 121	NO _x	1.99	8.74	6, 7	23, 24	
		CO	1.40	6.16			
		VOC	0.09	0.39			
		SO ₂	0.46	2.04			
		PM	0.12	0.54			
		PM ₁₀	0.12	0.54			
		PM _{2.5}	0.12	0.54			
H-35	Tank 300M2 Heaters	NO _x	1.59	6.99	6, 7	23, 24	
		CO	1.12	4.93			
		VOC	0.07	0.31			
		SO ₂	0.37	1.63			
		PM	0.10	0.43			
		PM ₁₀	0.10	0.43			
		PM _{2.5}	0.10	0.43			

Major NSR Summary Table

Permit Numbers: 138707 and PSDTX1524					Issuance Date: March 31, 2016		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
H-51	Asphalt Tank Heater 300M3	NO _x	0.53	2.33	6, 7	23, 24	
		CO	1.12	4.93			
		VOC	0.07	0.31			
		SO ₂	0.37	1.63			
		PM	0.10	0.43			
		PM ₁₀	0.10	0.43			
		PM _{2.5}	0.10	0.43			

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC
 - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x
 - total oxides of nitrogen
 - PM
 - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀
 - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5}
 - particulate matter equal to or less than 2.5 microns in diameter
 - CO
 - carbon monoxide
 - H₂S
 - hydrogen sulfide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21**

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-861-GHG

PERMITTEE: Diamond Shamrock Refining Company, L.P.
6701 FM 119
Sunray, TX 79086


FACILITY NAME: Diamond Shamrock Refining Company, L.P.
Valero McKee Refinery

FACILITY LOCATION: 6701 FM 119
Sunray, TX 79086

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. Seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) permit to Diamond Shamrock Refining Company, L.P. (a Valero Company) for Greenhouse Gas (GHG) emissions. The Permit applies to the addition and modification to several emissions sources as part of a Crude Expansion Project to increase the overall processing of crude oil at the existing Valero McKee Refinery located in Sunray, Texas.

Valero is authorized to construct the Crude Expansion Project as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD permit in conjunction with the corresponding Texas Commission on Environmental Quality (TCEQ) construction PSD permit No. PSD-TX-861M3. Failure to comply with any condition or term set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act (CAA). This PSD Permit does not relieve Valero of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR §124.15(b)(3), this PSD Permit becomes effective immediately upon issuance of this final decision.



Wren Stenger, Director
Multimedia Planning and Permitting Division

9/16/13

Date

Diamond Shamrock Refining Company, L.P. (PSD-TX-861-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Permit Conditions

PROJECT DESCRIPTION

The Diamond Shamrock Refining Company, Valero McKee Refinery (Valero) processes crude oil to produce petrochemical products and commercial petroleum products. Crude oil is blended at a separate facility and transferred to Valero by pipeline and trucks. The crude oil is then processed and refined into various petrochemical products and commercial petroleum products such as propane, gasoline, jet fuel, diesel fuel, and asphalt.

The Crude Expansion Project will debottleneck parts of the refinery to allow for additional crude processing. The proposed changes involve the installation and modification of equipment at several existing process units such as the Nos. 1 and 2 Crude Units, the Nos. 1 and 2 Vacuum Units, the Refinery Light Ends (RLE) Unit, the No. 4 Naphtha Fractionator, the Dehexanizer Tower (a Naphtha Fractionator), the Hydrocracking Unit (HCU), the Gasoline Desulfurization Unit (GDU), the Turbine Fuel Merox Unit, the Diesel Hydrotreater, the Gas Oil Fractionator (GOF), Sour Water Stripper (SWS), and Amine Treating and Sulfur Recovery Units (SRUs) at the existing Valero McKee Refinery located in Sunray, Moore County, Texas. In addition, a new steam boiler, new storage tanks, new cooling tower pumps and new process piping will be added to accommodate the increased crude processing. The Crude Expansion Project will increase the crude processing from 169,000 barrels per day to 210,000 barrels per day when completed.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
B-22	B-22	Boiler No. 22. The boiler has a maximum heat input rate of 225 MMBtu/hr (HHV) firing refinery fuel gas.
H-2	H-2	No. 1 Vacuum Heater. The vacuum heater has a maximum heat input rate of 88.0 MMBtu/hr.
H-64	H-64	No. 4 Hydrotreater Charge Heater. The charge heater has a maximum heat input rate of 33.26 MMBtu/hr.
V-5	V-5	SRU No. 1 Incinerator. The incinerator has a maximum stack flow rate of 279,767 scfh at 60 °F

F-1CRUDE; F-2CRUDE; F-RLE; F-4NHT; F-HCU; F-DHDSU/ GASPLT; F-GHDS; F-SRU1; F-SRU2; F-WWTP; F-ETNKFRM; F-NTNKFRM; F-WTNKFRM	FUGITIVES	Process fugitives from No. 1 Crude Unit and Dehexanizer, No. 2 Crude Unit, Refinery Light Ends Unit, No. 4 Naphtha Fractionator, Hydrocracker, Diesel Hydrodesulfurization Unit & Turbine Merox Unit, Gasoline Desulfurization Unit, No. 1 SRU, No. 2 SRU, Wastewater Treatment Plant, East Tank Farm, North Tank Farm, and West Tank Farm
MSS-FLARE	MSS-CONTROL	Portable Flare or Portable Thermal Oxidizer for EFR Tank Degassing Control
MSS Fugitives	MSSFUG	MSS Process Fugitives

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR §52.21(r), this PSD Permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR §52.21(b)(9)) within 18 months after the approval takes effect; or
2. is discontinued for a period of 18 months or more; or
3. is not completed within a reasonable time.

Pursuant to 40 CFR §52.21(r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. date construction is commenced, postmarked within 30 days of such date;
2. actual date of initial startup, as defined in 40 CFR §60.2, postmarked within 15 days of such date; and
3. date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition V.B.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and maintenance, Permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not limited to, monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in GHG emissions above the allowable emission limits stated in Section II and III of this permit.
2. Within 10 days of the restoration of normal operations after any failure described in I.D.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section II and III, and the methods utilized to mitigate emissions and restore normal operations.
3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. to enter the premises where the facility is located or where any records are required to be kept under the terms and conditions of this PSD Permit;
2. during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;
3. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and,
4. to sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the

succeeding owner and operator of the existence of the PSD Permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within thirty days of the letter signature.

G. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD Permit, the application on which this permit is based, the TCEQ construction NSR permit PSD-TX-861M3 (when issued for the Crude Expansion Project) and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

BACT	Best Available Control Technology
CAA	Clean Air Act
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
EPN	Emission Point Number
FIN	Facility Identification Number
FR	Federal Register
GCV	Gross Calorific Value
GHG	Greenhouse Gas
GWP	Global Warming Potential
HCU	Hydrocracking Unit
HHV	High Heating Value
hr	Hour
lb	Pound
LDAR	Leak Detection and Repair
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
NSR	New Source Review
N ₂ O	Nitrous Oxides
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
RLE	Refinery Light Ends
SCFH	Standard Cubic Feet per Hour
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPY	Tons per Year
USC	United States Code

II. Annual Emission Limits

Annual emissions, in tons per year (TPY) on a 12-month rolling basis, shall not exceed the following:

Table 1. Annual Emission Limits

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2,3}	BACT Requirements
				TPY ²		
B-22	B-22	No. 22 Boiler	CO ₂	112,501.56	113,043	<ul style="list-style-type: none"> 0.11 lbs CO₂/scf Fuel on a 365-day rolling basis See permit condition III.A.2
			CH ₄	6.52		
			N ₂ O	1.30		
H-2	H-2	No. 1 Vacuum Heater	CO ₂	37,571.78	37,754	<ul style="list-style-type: none"> 0.11 lbs CO₂/scf Fuel on a 365-day rolling basis See permit condition III. B.2
			CH ₄	2.18		
			N ₂ O	0.44		
H-64	H-64	No. 4 Hydrotreater Charge Heater	CO ₂	16,631.04	16,711	<ul style="list-style-type: none"> 0.11 lbs CO₂/scf Fuel on a 365-day rolling basis See permit condition III. B.2
			CH ₄	0.96		
			N ₂ O	0.19		
V-5	V-5	No. 1 SRU equipped with a Claus Burner and Tail Gas Incinerator ⁶	CO ₂	28,021.28	28,030	<ul style="list-style-type: none"> Good combustion and operating practices; Energy Efficient Design; 3-Stage Claus Burner System and SCOT tail gas treatment system; See permit condition III. C
			CH ₄	0.12		
			N ₂ O	0.02		
F-1CRUDE F-2CRUDE F-RLE F-4NHT F-HCU F-DHDSU F-GHDS F-SRU1 F-SRU2 F-WWTP F-ETNKFRM F-NTNKFRM F-WTNKFRM	FUGITIVES	Process Fugitives ⁸	CO ₂	No Numerical Limit Established ⁴	74.6	Incorporation of 28 VHP Monitoring. See permit condition III.E.
			CH ₄	3.55		
			N ₂ O	No Numerical Limit Established ⁴		
MSS-FLARE	MSS-CONTROL	Portable Combustion Control Device	CO ₂	11	12	Good combustion and operating practices. See permit condition III.D.
			CH ₄	0.03		
			N ₂ O	No Numerical Limit Established ⁴		

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2,3}	BACT Requirements
				TPY ²		
MSS Fugitives	MSSFUG	Process Fugitives MSS ⁸	CO ₂	No Numerical Limit Established ⁴	0.63	Incorporation of 28 VHP Monitoring. See permit condition III.E.
			CH ₄	0.03		
			N ₂ O	No Numerical Limit Established ⁴		
Totals ^{5,7}			CO ₂	194,736.66	195,625.2	
			CH ₄	13.39		
			N ₂ O	1.95		

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations including MSS activities.
3. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
4. All values indicated as "No Numerical Limit Established" are less than 0.01 tpy with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
5. The total emissions for CH₄, N₂O, CO₂ and CO₂e do not include the PTE for process fugitive emissions only from increased fugitive components
6. Emissions include greenhouse gas emissions from fuel gas and acid gas combustion in SRU Claus burners and the tail gas incinerator.
7. Totals represent the amount of new or modified emission unit greenhouse gas emissions.
8. Process fugitive emissions are estimated for additional fugitive components only to be added by this project.

III. SPECIAL PERMIT CONDITIONS

A. Requirements for Boiler (EPN: B-22)

1. **Fuel specifications:** The fuel for the boiler is a mixture of refinery fuel gas and pipeline quality natural gas.
2. **Boiler BACT Requirements:**
 - a. The BACT limit of 0.11 lbs of CO₂/scf of fuel is based on a 365-day rolling average and will be obtained by using the daily calculation result of the CO₂ emissions and divided by the daily measured fuel consumption. The quotient of the divided result is added to the 365-day rolling average and is rolled daily. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the CO₂ CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).
 - b. The Permittee shall calculate, on a monthly basis, the amount of CO₂e emitted from the boiler in tons/yr based on the procedures and Global Warming Potential (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). Compliance shall be based on a 12-month rolling basis.
 - c. Calculations to demonstrate compliance with the 12-month rolling limits shall be

completed no later than 30 days after the end of the 12-month rolling period.

3. Boiler Work Practice and Operational Requirements

- a. Compliance with the CO₂e Annual Emission Limit shall be demonstrated on a 12-month rolling basis as follows:
 - i. Permittee shall calculate on a monthly basis the amount of CO₂ emitted from combustion in tons/yr using the measured fuel consumption, the measured carbon content and equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - ii. Permittee shall calculate on a monthly basis the CH₄ and N₂O emissions from combustion using the measured fuel consumption, the measured fuel actual heat content and equation C-8 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - iii. Calculations shall be completed no later than 30 days after the end of the 12-month rolling period
- b. The fuel carbon content and gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR 98.34(a). Records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the boiler or shall allow a sample to be taken by EPA for analysis.
- c. The flow rate of the fuel combusted shall be measured and recorded using an operational totalizing fuel flow meter at the inlet.
- d. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
- e. Permittee shall perform and document boiler burner tune-ups (including inspection of the burner, flame pattern and air-to-fuel ratio) at a minimum of annually.
- f. The boiler is not expected to have GHG emissions in excess of the allowed emission rates during periods of startup, shutdown or maintenance.
- g. Permittee shall perform a preventative maintenance check of oxygen control analyzers and document annually.

B. Requirements for Heaters (EPNs: H-2 and H-64)

1. **Fuel specifications:** The fuel for the heaters is a mixture of refinery fuel gas and pipeline quality natural gas.
2. **Heater BACT Requirements:**
 - a. The BACT limit of 0.11 lbs of CO₂/scf of fuel for each heater is based on a 365-day rolling average and will be obtained by using the daily calculation result of the CO₂ emissions and divided by the daily measured fuel consumption. The quotient of the divided result is added to the 365-day rolling average and is rolled daily. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the

- CO₂ CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).
- b. The Permittee shall calculate, on a monthly basis, the amount of CO₂e emitted from each heater in tons/yr based on the procedures and Global Warming Potential (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). Compliance shall be based on a 12-month rolling basis.
- c. Calculations to demonstrate compliance with the 12-month rolling limits shall be completed no later than 30 days after the end of the 12-month rolling period.

3. Heater Work Practice and Operational Requirements

- a. Compliance with the CO₂e Annual Emission Limit shall be demonstrated on a 12-month rolling basis as follows:
 - i. Permittee shall calculate on a monthly basis the amount of CO₂ emitted from combustion in tons/yr using the measured fuel consumption, the measured carbon content and equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - ii. Permittee shall calculate on a monthly basis the CH₄ and N₂O emissions from combustion using the measured fuel consumption, the measured fuel actual heat content and equation C-8 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - iii. Calculations shall be completed no later than 30 days after the end of the 12-month rolling period starting one year after the start of operation of the proposed changes.
- b. The fuel carbon content and gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR 98.34(a). Records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the heater or shall allow a sample to be taken by EPA for analysis.
- c. The flow rate of the fuel combusted shall be measured and recorded using an operational totalizing fuel flow meter at the inlet.
- d. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
- e. Permittee shall perform heater burner tune-ups at a minimum of annually.
- f. Permittee shall perform a preventative maintenance check of oxygen control analyzers and document annually.
- g. The heaters are not expected to have GHG emissions in excess of the allowed emission rates during periods of startup, shutdown, or maintenance.

C. No. 1 Sulfur Recovery Unit (EPN: V-5)

Sulfur Recovery Unit Work Practice and Operational Requirements:

- a. The Permittee shall calculate, on a monthly basis, the amount of CO₂e emitted from EPN V-5 in tons/yr based on the procedures and Global Warming Potential (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A,

Table A-1, as published on October 30, 2009 (74 FR 56395). Compliance shall be based on a 12-month rolling basis. Calculations to demonstrate compliance with the 12-month rolling limits shall be completed no later than 30 days after the end of the 12-month rolling period.

- b. Compliance with the CO₂e Annual Emission Limit shall be demonstrated on a 12-month rolling basis as follows:
 1. For EPN V-5, the monthly CO₂ mass emission limit shall be calculated as follows:
 - ii. For the Sulfur Recovery Unit, the Permittee shall calculate on a monthly basis the amount of CO₂ emitted using the measured volumetric flow rate of sour gas feed and equation Y-12 of 40 CFR part 98 Subpart Y, converted to short tons.
 - iii. For the three-Stage Claus Burner and SCOT Tail Gas Incinerator, the Permittee shall calculate on a monthly basis the amount of CO₂ emitted from combustion in tons/yr using equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons.
 - iv. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the CO₂ CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).
 2. The calculated CO₂ emissions from the Sulfur Recovery Unit and Claus Burner and SCOT Tail Gas Incinerator shall be summed and added to the 12-month rolling total.
 3. Permittee shall calculate on a monthly basis the CH₄ and N₂O emissions on a 12-month rolling basis using the measured fuel consumption, the measured actual heat input and equation C-8 in 40 CFR Part 98 Subpart C, converted to short tons.
- c. Calculations of CO₂, CH₄ and N₂O emissions shall be completed no later than 30 days after the end of the 12-month rolling period starting one year after the start of operation of the proposed changes.
- d. The daily volumetric flow rate of the sour gas feed to the Claus Burner and Tail Gas Incinerator shall be measured and recorded at the inlet to the unit.
- e. The daily flow rate of the fuel combusted in the SRU shall be measured and recorded using an operational totalizing fuel flow meter at the inlet.
- f. For the Claus burner and Tail Gas Incinerator, the fuel carbon content and gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR 98.34(a). Records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the boiler or shall allow a sample to be taken by EPA for analysis.
- g. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
- h. The permittee shall utilize a three-stage Claus system equipped with a SCOT process tail gas treating system.
- i. The permittee shall demonstrate compliance with the DRE by maintaining the tail gas incinerator firebox temperature at a minimum of 1,297°F and the exhaust oxygen concentration shall be maintained at not less than 1 percent while waste gas is being

fed into the SRU incinerator. The tail gas incinerator shall be operated with not less than the oxygen concentration and firebox average temperature maintained above the minimum temperature maintained during the last satisfactory stack test performed in accordance with Special Condition V.J. During startup and shutdown, the oxygen concentration is limited to 0.25 percent for less than one hour and the temperature is limited to 750°F for less than one hour. A record shall be maintained indicating the start and end times for each startup and shutdown activity.

The tail gas incinerator fire box exit temperature and oxygen concentration shall be continuously monitored and recorded. The temperature measurement device shall reduce the temperature readings to an average period of 15-minute blocks or less and record it at that frequency. The temperature monitor shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ± 2 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

Quality-assured (or valid) data must be generated when the tail gas incinerator is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the tail gas incinerator operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

D. Portable Combustion Control Device (EPN: MSSCONTROL)

Portable Combustion Control Device Work Practice and Operational Requirements

- a. MSS emissions from the new stabilized crude oil tanks shall be vented to a portable combustion control device (portable thermal oxidizer (TO) or portable Flare). The portable TO is the preferred combustion control device and the portable flare shall be used as a back-up alternative to the portable thermal oxidizer.
- b. The CO_{2e} emissions from the portable TO shall be calculated monthly for the 12-month rolling emission limit and are based on 40 CFR 98.33, equation C-1. The calculations must be based on the applicable measured parameters specified in special condition i of this section. Records of the CO_{2e} 12-month rolling average must be kept and made available for inspection for five years.
- c. The permittee shall maintain a combustion temperature at a minimum of 1,400°F at all time when processing waste gases from the new stabilized crude oil tanks. Temperature monitoring of the portable TO will ensure proper operation. The permittee shall install and maintain a temperature recording device. The firebox temperature shall be monitored continuously and recorded during all times when processing waste gases in the portable TO. In addition, the flow rate of the waste gases routed to the TO is limited to assure at least a 0.5 second combustion chamber residence time at all times when the device is in use.
- d. Any monitoring device used to demonstrate compliance with the proper functioning of EPN MSSCONTROL shall be installed, calibrated, maintained and operated in

accordance with the manufacturer's instructions.

- e. If the portable TO is not available for use, the portable flare may be used. The calculations of the CO₂e emissions from the portable flare are based on 40 CFR 98.253 equation Y-3 and shall be added to the monthly CO₂e 12-month rolling emission limit. The calculations must be based on the measured parameters specified in special condition h of this section. Records of the CO₂e 12-month rolling average must be kept and made available for inspection for five years.
- f. The portable flare is an intermittent use MSS flare, not a continuous process flare.
- g. The portable flare can be either air assisted or non-assisted.
- h. For a portable flare, the permittee shall use one of the following methods to demonstrate compliance with the requirements of 40 CFR 60.18.
 - i. The permittee shall continuously monitor the net heating value of the gas stream routed to the flare.
 - ii. The permittee shall continuously monitor the total volume of supplemental fuel added to the gas stream routed to the flare and continuously maintain sufficient supplemental fuel to meet the minimum net heating value requirements in 40 CFR §60.18 assuming that the net heating value contribution from the degassed vapor is equivalent to a level corresponding to 50% of the lower explosive limit (LEL). The permittee may estimate the volumetric flow rate from the tank or vessel for the purpose of this calculation if the flow rate of the degassed vapor is not directly monitored.
 - iii. The permittee shall use calculations to demonstrate that for the material stored in the tank or vessel the net heating value of the gas stream routed to the flare cannot drop below the minimum net heating value requirements in 40 CFR §60.18 until the concentration of VOC in the vapors being routed to the flare is less than 50 percent of the LEL or 34,000 parts per million by volume (ppmv) of VOC at zero percent oxygen.
 - iv. If the flare is a non-assisted flare that qualifies for the provisions in 40 CFR §60.18(c)(3)(i), the permittee may elect to continuously monitor the hydrogen content of the gas stream routed to the flare and continuously meet the minimum 8.0% by volume hydrogen content requirement in lieu of the requirements in clauses (i) - (iii) of this special condition.
- i. Permittee must record the time, date, fuel volume and heat input (HHV) in MMBtu/hr and duration of each MSS event. If the portable TO is used, the combustion chamber temperature and residence times (or the periodic control efficiency demonstration) shall be maintained for each MSS event. If the portable flare is used, the permittee shall keep records of the data used to comply with special condition h of this section.

E. Fugitive Emission Sources (EPNs: FUGITIVES and MSSFUG)

Fugitive Emission Sources Work Practice and Operational Requirements

- a. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be located to be reasonably accessible for fugitive emission monitoring during plant operation.
- b. The TCEQ 28 VHP leak detection and repair (LDAR) program for fugitive emissions

of methane in the fuel gas line will be implemented for this project. Any leaking component should be repaired and recorded as required in the 28 VHP program.

- c. The gas detector shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with CH₄ and have a response factor no less than 10 for the pollutant or combination of pollutants being measured. Replacements for leaking components should be remonitored no later than 15 days after placed back in service.
- d. A weekly audio, visual inspection program will be used to determine methane leaks from the fugitive components in the fuel piping.

IV. Recordkeeping and Reporting

A. Records

1. In order to demonstrate compliance with the GHG emission limits in Table 1, the Permittee will monitor the following parameters and summarize the data on a calendar month basis.
 - a. Operating hours for all air emission sources;
 - b. Records of the fuel consumed by each source;
 - c. The fuel usage for all combustion sources, using continuous fuel flow monitors (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate);
 - d. Semi-annual fuel sampling for natural gas, daily fuel sampling of refinery fuel gas, or other frequencies as allowed by 40 CFR Part 98 Subpart C §98.34(b)(3); and
2. Permittee shall maintain a file of all records, data, measurements, reports, and documents related to the operation of the subject facilities, including, but not limited to, the following: all records or reports pertaining to significant maintenance performed on any system or device at the facility; duration of startup, shutdown; the initial startup period for the emission units; pollution control units; malfunctions; all records relating to performance tests, calibrations, checks, and monitoring of combustion equipment; duration of an inoperative monitoring device and emission units with the required corresponding emission data; and all other information required by this permit recorded in a permanent form suitable for inspection. The file must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.
3. Permittee shall maintain records of all GHG emission units and CO₂ emission certification tests and monitoring and compliance information required by this permit.
4. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:

- a. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - b. Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
 - c. A statement in the report of a negative declaration; that is; a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted; and
 - d. Any failure to conduct any required source testing, monitoring, or other compliance activities.
5. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit, a malfunction occurs, or any other unauthorized emissions occur.
 6. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.
 7. All records required by this PSD Permit shall be retained for not less than 5 years following the date of such measurements, maintenance, and reporting.

V. Initial Performance Testing Requirements:

- A. The Permittee shall perform stack sampling and other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the stacks of the Boiler (EPN B-22), Heaters (EPNs H-2 and H-64), SRU equipped with an incinerator (EPN V-5), and to determine the initial compliance with the CO₂ emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b for the concentration of CO₂.
 1. Multiply the CO₂ hourly average emission rate determined under maximum operating test conditions by 8,760 hours.
 2. If the above calculated CO₂ emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
 3. If the above calculated CO₂ emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall;
 - a. Document the exceedance in the test report; and
 - b. Explain within the report how the facility will assure compliance with the CO₂ emission limit listed in Table 1.
- B. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility, performance tests(s) must be conducted and a written report of the performance testing results furnished to the EPA. Additional sampling may be required by TCEQ or EPA.
- C. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- D. The boiler (EPN B-22), heaters (EPNs H-2 and H-64) and SRU equipped with an incinerator

- (EPN V-5), shall operate at maximum production rates during stack emission testing.
- E. Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.
 - F. The owner or operator must provide the EPA at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford the EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test.
 - G. The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:
 - 1. Sampling ports adequate for test methods applicable to this facility,
 - 2. Safe sampling platform(s),
 - 3. Safe access to sampling platform(s), and
 - 4. Utilities for sampling and testing equipment.
 - H. Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply.
 - I. Emissions testing for the boiler (EPN B-22), as outlined above, shall be performed every three years to verify continued performance at permitted emission limits.
 - J. Emissions testing for the heaters (EPNs H-2 and H-64) and SRU equipped with an incinerator (EPN V-5), shall be performed every five years, plus or minus 6 months, after the previous performance test was performed, or within 180 days after the issuance of a permit renewal, whichever comes later to verify continued performance at the permitted emission limits.

VI. Agency Notifications

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multimedia Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance Assurance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6EN)
Dallas, TX 75202



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Diamond Shamrock Refining Company, L.P.
Authorizing the Construction and Operation of
Valero McKee Refinery
Located at **Sunray, Moore County, Texas**
Latitude 35° 57' 6" *Longitude* -101° 52' 24"

Permits: 138707 and PSDTX861M3

Issuance Date: March 31, 2016

Expiration Date: October 1, 2014

A handwritten signature in black ink, appearing to read "R. D. A. Hyle".

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]¹
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling

facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled “Emission Sources--Maximum Allowable Emission Rates.” [30 TAC § 116.115(b)(2)(F)]¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to “air pollution” as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

¹ Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Special Conditions

Permit Numbers 138707 and PSDTX861M3

1. This permit authorizes emissions only from those points listed in the attached table entitled "Attachment I - Source Categories, Emission Point Numbers and Source Names," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on the attached table entitled "Emission Sources –Maximum Allowable Emission Rates" and other operating conditions specified in this permit.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration of greater than 1 weight percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Federal Applicability

3. Upon startup of the represented modifications in the Crude Expansion Project, these facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
 - A. Subpart A, General Provisions.
 - B. Subpart GGGa – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [applicable to the :
 - (1) East Tank Farm (EPN F-ETNKFRM)
 - (2) North Tank Farm (EPN F-NTNKFRM)
 - (3) West Tank Farm (EPN F-WTNKFRM)

Storage of Volatile Organic Compounds (VOC)

4. Storage tanks are subject to the following requirements: The control requirements specified in parts A-C of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.
 - A. The tank emissions must be controlled as specified in one of the paragraphs below:
 - (1) An internal floating deck or "roof" shall be installed. A domed external floating roof tank is equivalent to an internal floating roof tank. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.

- (2) An open-top tank shall contain a floating roof (external floating roof tank) which uses double seal or secondary seal technology provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.
 - B. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and any seal gap measurements specified in Title 40 Code of Federal Regulations § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates inspection was performed, any measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.
 - C. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
 - D. Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
 - E. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions from tanks shall be calculated using the methods that were used to determine the MAERT limits in the Flexible Permit No. 9708 amendment application (PI-1 dated December 10, 2012). Sample calculations from the application shall be attached to a copy of this permit at the plant site.
5. The following requirements apply to the new floating roof tanks EPNs: S-232, S-236, S-237, S-230, S-231, and S-235.
- A. Tanks shall be constructed with a sloped bottom and a sump that can be emptied to less than 1 percent of its nominal volume. The mesa floor tank design is an acceptable alternative for a drain dry tank.
 - B. Tanks shall be constructed or equipped with the capability for connection to a vapor recovery system that routes vapors from the vapor space under the landed roof to a control device.
 - C. The tanks' outlet to the vapor recovery system shall be located at a height from the tank floor no less than 90 percent of the tank roof's leg height, or be of such a design that demonstrably allows the control of no less than 90 percent of the vapors generated under the floating roof during tank re-filling.

Heaters

6. There shall be no visible emissions from the heaters except for those periods described in 30 TAC § 111.111(a).
7. All combustion sources covered under this permit shall be fired with either sweet natural gas as defined in 30 TAC Chapter 101 or with refinery fuel gas containing no more than 162 ppmv and 60 ppmv hydrogen sulfide (H₂S) on three-hour and annual average basis, respectively.

Piping, Valves, Connectors, Pumps, and Agitators – 28VHP

8. Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:
 - A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

 - piping and instrumentation diagram (PID);
 - a written or electronic database or electronic file;
 - color coding;
 - a form of weatherproof identification; or
 - designation of exempted process unit boundaries.
 - B. Construction of new and reworked piping, valves, and pump systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
 - C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
 - D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.
 - E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or

hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) A cap, blind flange, plug, or second valve must be installed on the line or valve; or
- (2) The open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72-hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR Part 60, Appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

- K. Alternative monitoring frequency schedules of 30 TAC 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
- M. As an alternative to comparing the daily emission rate of the components on the delay of repair (DOR) list to the total emissions from a unit shutdown per the requirements of Special Condition No. 8, Subparagraph I, the cumulative hourly emission rate of all components on the DOR list may be compared to ten percent of the fugitive short term allowable on the Maximum Allowable Emission Rate Table in order to determine if the TCEQ Regional Director and any local program is to be notified. In addition, the hourly emission rates of each specific compound on the DOR list must be less than ten percent of the speciated hourly fugitive emission rate of the same compound.

Planned Maintenance, Startup and Shutdown

- 9. This permit authorizes emissions from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on the maximum allowable emission rates (MAERT) and other requirements specified in the special conditions.

Planned startup and shutdown emissions due to the activities identified in Special Condition No. 10 are authorized from facilities and emission points identified in Attachment D in other construction permits at the site provided the facility and emissions are compliant with the respective MAERT and special conditions, or Special Condition Number 16 of this permit.

- 10. This permit authorizes the emissions for the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit. This permit also authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: facilities used for painting or abrasive blasting, portable control devices identified in Special Condition No. 18, and controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent site facilities listed in Attachment D, and (c) does not operate as a replacement for an existing authorized facility.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the refinery. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This

revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

- A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name or the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. The date on which the MSS activity occurred;
- E. The estimated quantity of each air contaminant or mixture of air contaminants emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

11. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.

- A. The VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR Part 60, Appendix A) with the following exceptions:
 - (1) The instrument shall be calibrated within 24 hours of use with a calibration gas. The calibration gas used and its concentration, and the vapor to be sampled and its approximate response factor (RF), shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:
$$\text{VOC Concentration} = \text{Concentration as read from the instrument} \times \text{RF}$$
 - (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least five minutes and the greatest VOC concentration recorded. This VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

- (3) If a TVA-1000 series FID analyzer calibrated with methane is used to determine the VOC concentration, a measured concentration of 34,000 ppmv may be considered equivalent to 10,000 ppmv as VOC.
 - B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.
 - (1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.
 - (2) The tube is used in accordance with the manufacturer's guidelines.
 - (3) At least two samples taken at least five minutes apart must satisfy the following prior to uncontrolled venting:
measured contaminant concentration (ppmv) < release concentration.
Where the release concentration is:
10,000*mole fraction of the total air contaminants present that can be detected by the tube.
The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.
Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.
 - C. Lower explosive limit measured with a lower explosive limit detector.
 - (1) The detector shall be calibrated monthly with a certified pentane/air mixture at 25 percent of the lower explosive limit for pentane.
 - (2) A daily functionality test shall be performed on each detector using the same certified gas mixture used for calibration. The LEL reading shall be within +10 percent of the calibration gas certified value.
 - (3) A certified methane gas standard equivalent to 25 percent of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95 percent of that for pentane.
 - D. For measuring benzene breakthrough on Carbon Adsorption Systems in Special Condition No. 17, a portable gas chromatograph using a flame ionization detector or photo ionization detector may be used. Alternatively a photo-ionization detector equipped with a benzene separation tube consistent with manufacturer requirements may be used. The monitor shall have the sensitivity and specificity to quantify low level benzene concentrations. The monitor device shall be calibrated within 24 hours of use with a certified calibration gas containing ~5 ppm benzene. Records of the calibration date/time and calibration result shall be maintained.
12. This condition applies only to piping and components subject to leak detection and repair monitoring requirements identified in other NSR permits. Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in

an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period:

- A. A cap, blind flange, plug, or second valve must be installed on the line or valve; or
 - B. The open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
13. This permit authorizes emissions from the storage tanks identified in the attached facility list during planned floating roof landings. Only one tank floating roof, authorized by this permit or Flexible Permit No. 9708, may be landed within the same hour. Tank floating roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application, except when the VOC vapors below the floating roof are routed to a control device or a controlled recovery system from the time the floating roof is landed until the floating roof is within 10 percent by volume of being refloated. Tank change of service includes landings to accommodate seasonal RVP spec changes and landings to correct off spec material that cannot be blended into finished product tanks. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT.

The following requirements apply to tank roof landings:

- A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control during this process.

This requirement does not apply if the level is lowered to allow for maintenance that is expected to be completed in less than 24 hours. In that case, the tank must be filled and the roof floated within 24 hours of landing the roof and the evolution documented in accordance with Special Condition No. 13.E.
- B. If the VOC true vapor pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95° F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC true vapor pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to

ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:

- (1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.
 - (2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
 - (3) A volume equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration. The volume measurement shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition No. 11.
 - (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
 - (5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC true vapor pressure of the remaining liquid in the tank is less than 0.15 psia.
- C. The tank shall not be opened or ventilated without control, except as allowed by (1) or (2) below until one of the criteria in part D of this condition is satisfied.
- (1) Minimize air circulation in the tank vapor space.

One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.

Access points shall be closed when not in use
 - (2) Minimize time and VOC partial pressure.

The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in part D(1) of this condition.

Blowers may be used to move air through the tank without emission control at a rate not to exceed 11,000 cfm for no more than 75 hours. All standing liquid shall be removed from the tank during this period.

Records shall be maintained of the blower circulation rate, the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.

- D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
 - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:

Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR Part 435 Subpart A, Appendix 1.

Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1,000 ppmw using EPA Method 1664 (may also use 8260B or 5030 with 8015 from SW-846).

Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1,000 ppmv through the procedure in Special Condition No. 11.
 - (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.
- E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exceptions:
- (1) Only one tank with a landed floating roof can be filled at any time at a rate not to exceed 4,643 bbl/hr.
 - (2) The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.
- F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:
- (1) The identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
 - (2) The reason for the tank roof landing;

- (3) For the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - (a) the roof was initially landed,
 - (b) all liquid was pumped from the tank to the extent practical,
 - (c) start and completion of controlled degassing, and total volumetric flow,
 - (d) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
 - (e) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
 - (f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and
 - (g) tank roof off supporting legs, floating on liquid;
 - (4) The estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events (c) and (g) with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.
14. Fixed-roof storage tanks are subject to the requirements of Special Condition No. 13.C and 13.D. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of Special Condition No. 13.B(1) through 13.B(5). Records maintained per Special Condition No. 13.F(3) through 13.F(4).
15. The MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.
16. All permanent facilities must comply with all operating requirements, limits, and representations in the permits identified in Attachment D during planned startup and shutdown unless alternate requirements and limits are identified in this permit. Alternate requirements for emissions from routine emission points are identified below:
 - A. Combustion units, with the exception of flares, at this site are exempt from NO_x and CO operating requirements identified in special conditions in other NSR permits during planned startup and shutdown if the following criteria are satisfied.

The maximum allowable emission rates in the permit authorizing the facility are not exceeded.

The startup period does not exceed eight hours in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 4 hours.

Control devices are started and operating properly when venting a waste gas stream.

- B. A record shall be maintained indicating that the start and end times for each of the activities identified above occur and documentation that the requirements for each have been satisfied.
17. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

Controlled recovery systems identified in this permit shall be directed to an operating refinery process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

- (1) The CAS shall consist of two carbon canisters in series with adequate carbon supply for the emission control operation.
- (2) The CAS shall be sampled downstream on the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

CAS systems equipped with an upstream liquid scrubber may be sampled once every 12 hours of CAS run time to determine breakthrough.

Sampling frequency may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If breakthrough is monitored on the initial sample of the upstream can when the polishing can is put in place, a permit deviation shall be recorded.

- (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11.
- (4) Breakthrough is defined as the highest measured VOC or benzene concentration at or exceeding 100 ppmv or 5 ppmv, respectively, above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within 24 hours. In lieu of replacing canisters, the flow of waste gas may be discontinued until the canisters are switched. Sufficient new activated carbon canisters shall be available to replace spent carbon canisters such that replacements can be done in the above specified time frame.

- (5) Records of CAS monitoring shall include the following:
 - Sample time and date.
 - Monitoring results (ppmv).
 - Canister replacement log.
- (6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.
- (7) Liquid scrubbers may be used upstream of carbon canisters to enhance VOC capture provided such systems are closed systems and the spent absorbing solution is discharged into a closed container, vessel, or system.

B. Single Carbon Adsorption or Scrubber System.

As an alternative to the requirements in paragraph A (6) and A (7), a single liquid scrubbing or single carbon adsorption system may be used as a sole control device if the requirements below are satisfied.

- (1) The exhaust to atmosphere shall be continuously monitored with a CEM. The VOC concentration shall be recorded at least once every 15 minutes when waste gas is directed to the CAS or scrubber.
- (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11 except 11.C.
- (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background and 2 percent of the system inlet concentration. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. Monitoring must be performed upstream of the carbon can as well to demonstrate collection efficiency. The date and time of all alarms and the actions taken shall be recorded.

C. Thermal Oxidizer.

- (1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.
- (2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency. Temperature measurements recorded in continuous strip charts may be used to meet the requirements of this section.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

D. Internal Combustion Engine.

- (1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.
- (2) The engine must have been stack tested with butane or propane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable EPA Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition No. 11 are also acceptable for this documentation.
- (3) The engine shall be operated and monitored in accordance with either a or b below.
 - (a) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the, manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.
 - (b) The engine exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the engine. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11.A. An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

E. A liquid scrubbing system may be used as a sole control device or in conjunction with carbon adsorption if the requirements below are satisfied.

- (1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.
 - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11.A.
 - (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.
 - F. A closed loop refrigerated vapor recovery system
 - (1) The vapor recovery system shall be installed on the facility to be degassed using good engineering practice to ensure air contaminants are flushed from the facility through the refrigerated vapor condensers and back to the facility being degassed. The vapor recovery system and facility being degassed shall be enclosed except as necessary to insure structural integrity (such as roof vents on a floating roof tank).
 - (2) VOC concentration in vapor being circulated by the system shall be sampled and recorded at least once every four hours at the inlet of the condenser unit with an instrument meeting the requirements of Special Condition No. 12.
 - (3) The quantity of liquid recovered from the tank vapors and the tank pressure shall be monitored and recorded each hour. The liquid recovered must increase with each reading and the tank pressure shall not exceed one inch water pressure while the system is operating.
 - G. Other control devices approved by the TCEQ through a permit amendment application or a pollution control permit application.
18. If spray guns are used to apply paint, they shall be airless, high volume low pressure (HVLP), or have the same or higher transfer efficiency as airless or HVLP spray guns.
19. Emissions from all painting activities, except for minor painting identified in Attachment A to this permit, at this site must satisfy the criteria below. New compounds may also be added through the use of the procedure below.
- A. Short-term (pounds per hour [lb/hr]) and annual (TPY) emissions shall be determined for each chemical in the paint as documented in the permit application. The calculated emission rate shall not exceed the maximum allowable emissions rate at any emission point.
 - B. The Effect Screening Level (ESL) for the material shall be obtained from the current TCEQ ESL list or by written request to the TCEQ Toxicology Section.
 - C. The total painting emissions of any compound must satisfy one of the following conditions:
 - (1) The total emission rate is less than 0.1 lb/hr and the ESL greater than or equal to 2 µg/m³; or

- (2) The emission rate of the compound in pounds per hour is less than the ESL for the compound divided by 1,000 ($ER < ESL/1,000$).
- D. The permit holder shall maintain records of the information below and the demonstrations in steps A through C above. The following documentation is required for each compound:
 - (1) Chemical name(s), composition, and chemical abstract registry number if available.
 - (2) Material Safety Data Sheet.
 - (3) Maximum concentration of the chemical in weight percent.
 - (4) Paint usage and the associated emissions shall be recorded each month and the rolling 12 month total emissions updated.
- 20. No visible emissions shall leave the property due to painting or abrasive blasting.
- 21. Black Beauty may be used for abrasive blasting. Abrasive blasting activities authorized by this permit and Flexible Permit No. 9708 shall not occur within the same hour. The permit holder may also use blast media that meet the criteria below:
 - A. The media shall not contain asbestos or greater than 1.0 weight percent crystalline silica.
 - B. The weight fraction of any metal in the blast media with a short-term ESL less than 50 micrograms per cubic meter as identified in the most recently published TCEQ ESL list shall not exceed the $ESL_{metal}/1,000$.
 - C. The MSDS for each media used shall be maintained on site.

Blasting media usage and the associated emissions shall be recorded each month and the rolling 12 month total emissions updated.
- 22. Planned maintenance activities must be conducted in a manner consistent with good practice for minimizing emissions, including the use of air pollution control equipment, practices and processes. All reasonable and practical efforts to comply with Special Condition Nos. 9 through 21 must be used when conducting the planned maintenance activity, until the commission determines that the efforts are unreasonable or impractical, or that the activity is an unplanned maintenance activity.

Emission Cap Compliance Recordkeeping

- 23. Recordkeeping programs for those facilities authorized and covered by this permit shall be established and maintained such that the ability to demonstrate compliance with all authorized emission caps (short-term lb/hr and annual TPY) is ensured. Records of all compliance testing, CEM results, and process parameters (including short-term production rates, firing rates, etc.) necessary to demonstrate compliance with the ER caps shall be maintained on-site for a period of two years.

24. Emission calculations for verifying compliance with the emission caps shall be performed at least once every calendar quarter to demonstrate compliance with the annual rolling average ER. Demonstration of compliance shall be based on the methodologies presented in the most recent permit application or as presented below. The holder of this permit shall maintain all records necessary to demonstrate compliance with the short-term (lb/hr) and annual (TPY) emissions caps consistent with this methodology and provide such demonstration of compliance to the TCEQ Regional Office upon request.

These and all records required by any conditions of this permit shall be made available to representatives of the TCEQ upon request.

The emissions shall be determined by using the following techniques. When a technique is not specified below for a specific facility type, the holder of this permit shall use the technique that was used in the permit application.

Storage Tanks - As specified in the special conditions of this permit, short-term emission rates shall be based on the maximum expected filling rate (fixed-roof) and the higher of the filling rate or withdrawal rate (IFR and EFR).

Heaters - If no stack sampling is required, use the proper emission factor for the specific unit from the permit application and the measured daily Btu value and daily average flow rate of the fuel gas.

Fugitives - Component counts, emission factors, and reduction credits specified in the permit application for the 28VHP maintenance program.

Compliance with the annual emission caps and individual emission limitations of this permit shall be based on a 12-month rolling average of emissions (emissions shall be calculated for individual calendar months and summed for consecutive 12-month periods for comparison to the caps).

Date: March 31, 2016

ATTACHMENT I

Permit Numbers 138707 and PSDTX861M3
Source Categories, Emission Point Numbers, and Source Names

This table lists the emission point numbers and the source names of all emission sources covered by this permit that are included in an emission cap.

Source Category	Emission Point No.	Source Name
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COMBUSTION SOURCES:

H-30	Asphalt Tank Heaters 5501, 5502, and 5503 (6 stacks)
H-32	Asphalt Tank Heaters 20M5, 20M6 (4 stacks)
H-32C	Asphalt Tank Heaters 20M7 (2 stacks)
H-33	Asphalt Tank Heaters. 34 and 121 (3 stacks)
H-35	Asphalt Tank Heater 300M2 (4 stacks)
H-51	Asphalt Tank Heater 300M3 (4 stacks)

STORAGE TANKS:

S-001	Tank 120M1
S-002	Tank 133
S-003	Tank 134
S-004	Tank 139
S-005	Tank 150M1
S-006	Tank 157
S-007	Tank 168
S-008	Tank 1001
S-009	Tank 1003
S-010	Tank 1501
S-011	Tank 1502
S-012	Tank 3001
S-013	Tank 3002
S-014	Tank 6701
S-015	Tank 6702
S-016	Tank 31
S-017	Tank 138
S-018	Tank 161
S-019	Tank 163
S-020	Tank 167
S-021	Tank 101
S-022	Tank 120M2

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Source Category	Emission Point No.	Source Name
	S-023	Tank 120M3
	S-024	Tank 126
	S-027	Tank 166
	S-028	Tank 2
	S-031	Tank 100M2
	S-032	Tank 140
	S-033	Tank 145
	S-037	Tank 21
	S-038	Tank 22
	S-039	Tank 130
	S-040	Tank 148
	S-043	Tank 164
	S-045	Tank 127
	S-046	Tank 142
	S-052	Tank 128
	S-055	Tank 1
	S-060	Tank 24
	S-065	Tank 29
	S-066	Tank 30
	S-067	Tank 32
	S-068	Tank 33
	S-069	Tank 34
	S-070	Tank 121
	S-072	Tank 551
	S-074	Tank 5501
	S-075	Tank 5502
	S-076	Tank 5503
	S-090	Tank 4
	S-095	Tank 100M
	S-137	Tank 20M5
	S-138	Tank 20M6
	S-139	Tank 125
	S-143	Tank 5505
	S-144	Tank 5504
	S-150	Tank 300M1
	S-176	Tank 200M1
	S-177	Tank 300M2
	S-183	Tank 120M4
	S-186	Tank 80M1

Source Category	Emission Point No.	Source Name
	S-187	Tank 150M2
	S-192	Tank 20M7
	S-194	Tank 300M3
	S-200	Tank 5506
	S-202	Tank 100M3
	S-203	Tank 150M3
	S-204	Tank 150M4
	S-218	Tank 60M1
	S-229	Tank 60M2 (Benzene Concentrate Tank)
	S-230	Tank 150M6
	S-231	Tank 150M7
	S-232	Tank 200M4
	S-235	Tank 200M6
	S-236	Tank 150M8
	S-237	Tank 150M9
	1220TKTXX1	Truck Rack B100 Blend Tank
	1220TKTXX2	Truck Rack B100 Certification Tank
	1220TKTXX3	Truck Rack B100 Certification Tank
	1150TKTXX4	Pipeline B100 Blend Tank
	1150TKTXX5	Pipeline B100 Blend Tank

PIPING COMPONENT FUGITIVES:

F-ASPHALT	Heavy Oil Blending
F-ETNKFRM	East Tank Farm Fugitives
F-NTNKFRM	North Tank Farm Fugitives
F-WTNKFRM	West Tank Farm Fugitives

MAINTENANCE:

All Storage Tanks (in VOC service <0.5 psia vapor pressure materials), and
 Piping Component Fugitive Areas (pump seal maintenance)

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.

Dated: March 31, 2016

ATTACHMENT A

Permit Numbers 138707 and PSDTX861M3
Inherently Low Emitting Activities

	Emissions				
Activity	VOC	NO _x	CO	PM	H ₂ S/SO ₂
Tank seal inspections and other tank inspection activities	x				

Dated: March 31, 2016

ATTACHMENT B

Permit Numbers 138707 and PSDTX861M3
Routine Maintenance Activities

Planned MSS activities performed with work orders where the isolated system volume is less than 30 cubic feet. These include activities such as:

Pump, vessel, valve, and piping maintenance/replacement not included in Attachment A

Pipeline pigging, compressor maintenance, maintenance on light liquid pumps where purged to slop or flare, maintenance on heavy liquid pumps where purged to slop or flare, maintenance on heavy liquid pumps where purged to open containers

Dated: March 31, 2016

ATTACHMENT C

Permit Numbers 138707 and PSDTX861M3
 MSS Activity Summary

Facilities	Description	Emissions Activity
all tanks	preparation for facility/component repair/replacement	vent to flare and/or equivalent control
all tanks	preparation for facility/component repair/replacement	vent to atmosphere
all tanks	including but not limited to: recovery from facility/component repair/replacement	vent to flare and/or equivalent control
all tanks	recovery from facility / component repair/replacement	vent to atmosphere
all tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid
all floating roof tanks	tank roof landing	operation with landed roof
all floating roof tanks	degas of tank with landed roof	controlled degassing
all tanks	tank cleaning	cleaning activity and solvents
see Attachment A	miscellaneous low emitting activities	see Attachment A
All production-related	Abrasive blasting	PM from blasting media

Dated: March 31, 2016

ATTACHMENT D

Permit Numbers 138707 and PSDTX861M3
Facility List

COMBUSTION SOURCES:

EPN	Source Name
H-30	Asphalt Tank Heaters 5501, 5502, and 5503 (6 stacks)
H-32	Asphalt Tank Heaters 20M5, 20M6 (4 stacks)
H-32C	Asphalt Tank Heaters 20M7 (2 stacks)
H-33	Asphalt Tank Heaters 34 and 121 (3 stacks)
H-35	Asphalt Tank Heater 300M2 (4 stacks)
H-51	Asphalt Tank Heater 300M3 (4 stacks)

STORAGE TANKS:

EPN	Source Name
S-001	Tank 120M1
S-002	Tank 133
S-003	Tank 134
S-004	Tank 139
S-005	Tank 150M1
S-006	Tank 157
S-007	Tank 168
S-008	Tank 1001
S-009	Tank 1003
S-010	Tank 1501
S-011	Tank 1502
S-012	Tank 3001
S-013	Tank 3002
S-014	Tank 6701
S-015	Tank 6702
S-016	Tank 31
S-017	Tank 138
S-018	Tank 161
S-019	Tank 163
S-020	Tank 167
S-021	Tank 101
S-022	Tank 120M2
S-023	Tank 120M3
S-024	Tank 126
S-027	Tank 166
S-028	Tank 2
S-031	Tank 100M2
S-032	Tank 140
S-033	Tank 145
S-037	Tank 21

STORAGE TANKS:

S-038	Tank 22
S-039	Tank 130
S-040	Tank 148
S-043	Tank 164
S-045	Tank 127
S-046	Tank 142
S-052	Tank 128
S-055	Tank 1
S-060	Tank 24
S-065	Tank 29
S-066	Tank 30
S-067	Tank 32
S-068	Tank 33
S-069	Tank 34
S-070	Tank 121
S-072	Tank 551
S-074	Tank 5501
S-075	Tank 5502
S-076	Tank 5503
S-090	Tank 4
S-095	Tank 100M
S-137	Tank 20M5
S-138	Tank 20M6
S-139	Tank 125
S-143	Tank 5505
S-144	Tank 5504
S-150	Tank 300M1
S-176	Tank 200M1
S-177	Tank 300M2
S-183	Tank 120M4
S-186	Tank 80M1
S-187	Tank 150M2
S-192	Tank 20M7
S-194	Tank 300M3
S-200	Tank 5506
S-202	Tank 100M3
S-203	Tank 150M3
S-204	Tank 150M4
S-218	Tank 60M1
S-229	Tank 60M2 (Benzene Concentrate Tank)
S-230	Tank 150M6
S-231	Tank 150M7
S-232	Tank 200M4
S-235	Tank 200M6
S-236	Tank 150M8
S-237	Tank 150M9

STORAGE TANKS:

1220TKTXX1	Truck Rack B100 Blend Tank
1220TKTXX2	Truck Rack B100 Certification Tank
1220TKTXX3	Truck Rack B100 Certification Tank
1150TKTXX4	Pipeline B100 Blend Tank
1150TKTXX5	Pipeline B100 Blend Tank

PIPING COMPONENT FUGITIVES:

EPN	Source Name
F-85	Cleaning Slab
F-ASPHALT	Heavy Oil Blending
F-ETNKFRM	East Tank Farm Fugitives
F-NTNKFRM	North Tank Farm Fugitives
F-WTNKFRM	West Tank Farm Fugitives

MISCELLANEOUS SOURCES:

EPN	SOURCE NAME
MSS_INS	Insignificant Activities

Dated: March 31, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number 138707 and PSDTX861M3

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MAINTENANCE EMISSIONS CAPS:		VOC	1062.63	19.59
		NO _x	1.85	0.13
		CO	3.70	0.27
F-85, F-ASPHALT, F-ETNKFRM, F-NTNKFRM,F-WTNKFRM	Sub cap for Fugitives (5)	VOC	12.24	52.36
		H ₂ S	<0.01	<0.01
		Benzene	0.05	0.23
S-001, S-002, S-003, S-004, S-005, S-006, S-007, S-008, S-009, S-010, S-011, S-012, S-013, S-014, S-015, S-016, S-017, S-018, S-019, S-020, S-021, S-022, S-023, S-024, S-027, S-028, S-031, S-032, S-033, S-037, S-038, S-039, S-040, S-043, S-045, S-046, S-052, S-055, S-060, S-065, S-066, S-067, S-068, S-069, S-070, S-072, S-074, S-075, S-076, S-090, S-095, S-137, S-138, S-139, S-143, S-144, S-150, S-176, S-177, S-183, S-186, S-187, S-192, S-194, S-200, S-202, S-203, S-204, S-218, S-229	Sub cap for Storage Tanks	VOC	113.90	376.43

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
S-001, S-002, S-003, S-004, S-006, S-007, S-008, S-009, S-010, S-012, S-013, S-014, S-020, S-022, S-023, S-027, S-031, S-032, S-037, S-038, S-043, S-045, S-052, S-055, S-070, S-075, S-095, S-137, S-138, S-143, S-144, S-150, S-176, S-177, S-183, S-186, S-187, S-192, S-194, S-200, S-202, S-218, S-230, S-231, S-232, S-235, S-236, S-237	Subcap for Crude Expansion Tanks	VOC	82.35	208.81
Tank Benzene Cap		Benzene	1.33	3.82
1220TKTXX1	Truck Rack B100 Blend Tank	VOC	4.99	0.74
1220TKTXX2	Truck Rack B100 Certification Tank	VOC	4.99	1.46
1220TKTXX3	Truck Rack B100 Certification Tank	VOC	4.99	0.74
1220TKTXX4	Pipeline B100 Blend Tank	VOC	4.99	0.74
1220TKTXX5	Pipeline B100 Blend Tank	VOC	4.99	0.74
MSS_ABRBLS	Abrasive Blasting Operation	PM	0.54	0.18
		PM ₁₀	0.07	0.02
		PM _{2.5}	< 0.01	< 0.01
H-30	Asphalt Tank Heaters 5501, 5502, and 5503	NO _x	2.54	11.12
		CO	0.82	3.57
		VOC	0.05	0.23
		SO ₂	0.27	1.18
		PM	0.07	0.31
		PM ₁₀	0.07	0.31
		PM _{2.5}	0.07	0.31

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-32	Tank Heaters 20M5 and 20M6	NO _x	0.80	3.50
		CO	0.56	2.46
		VOC	0.04	0.16
		SO ₂	0.19	0.82
		PM	0.05	0.22
		PM ₁₀	0.05	0.22
		PM _{2.5}	0.05	0.22
H-32C	Asphalt Tank Heater 20M7	NO _x	0.33	1.43
		CO	0.28	1.23
		VOC	0.02	0.08
		SO ₂	0.09	0.41
		PM	0.02	0.11
		PM ₁₀	0.02	0.11
		PM _{2.5}	0.02	0.11
H-33	Tank Heaters 34 and 121	NO _x	1.99	8.74
		CO	1.40	6.16
		VOC	0.09	0.39
		SO ₂	0.46	2.04
		PM	0.12	0.54
		PM ₁₀	0.12	0.54
		PM _{2.5}	0.12	0.54
H-35	Tank 300M2 Heaters	NO _x	1.59	6.99
		CO	1.12	4.93
		VOC	0.07	0.31
		SO ₂	0.37	1.63
		PM	0.10	0.43
		PM ₁₀	0.10	0.43
		PM _{2.5}	0.10	0.43

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-51	Asphalt Tank Heater 300M3	NO _x	0.53	2.33
		CO	1.12	4.93
		VOC	0.07	0.31
		SO ₂	0.37	1.63
		PM	0.10	0.43
		PM ₁₀	0.10	0.43
		PM _{2.5}	0.10	0.43

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO_x - total oxides of nitrogen

PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented

PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

H₂S - hydrogen sulfide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: March 31, 2016